***FRIENDS OF THE WILD SWAN***
***P.O. BOX 5103***
***SWAN LAKE, MT 59911***

November 23, 2005

Dept. of Natural Resources and Conservation
2705 Spurgin Road
Missoula, MT 59804-3199
Attn: Mike O'Herron and Sarah Pierce

U.S. Fish and Wildlife Service
2705 Spurgin Road
Missoula MT 59804-3199
Attn: Lowell Whitney

U.S. Fish and Wildlife Service
780 Creston Hatchery Road
Kalispell, MT 59901
Attn: Tim Bodurtha

Dear Mike. Sara, Lowell and Tim:

Please accept the following comments on DNRC's draft conservation strategies for aquatic species, grizzly bear, lynx and transition lands on behalf of Friends of the Wild Swan. We appreciate the opportunity to review these draft conservation strategies and ask that our comments be incorporated into the HCP.

We have serious concerns about whether these conservation strategies will minimize "take" of listed species. The inadequacy of existing regulatory mechanisms is a key reason why bull trout, lynx and grizzly bear were given Endangered Species Act protection, yet these strategies are little more than what DNRC is already doing in their state lands management program, and in some cases less. We fail to see how the status quo is minimizing impacts to listed species when the status quo was inadequate to ensure the survival of them.

The U.S. Fish and Wildlife Service must quantify the amount of "take" it is granting to DNRC. This calculation should include quantification of existing incidental take permits and incidental take statements for threatened and endangered species in this Habitat Conservation Plan area. There should also be a calculation of the cumulative

take that is occurring from all these incidental take permits and incidental take statements in the HCP area. This information needs to be analyzed in the context of how many bears, bull trout and lynx are actually "growing" on this landscape in order to get a clear picture of whether take is exceeding survival.

**Grizzly Bear Conservation Strategy**

1) Roads have negative impacts on grizzly bears. The grizzly bear conservation strategy relies on closing roads with gates seasonally as a mitigation measure. The Interagency Grizzly Bear Committee's Northern Continental Divide Ecosystem subcommittee proposed these same measures several years ago. A peer review of the Motorized Access Management Strategies for Grizzly Bear Habitat in the Northern Continental Divide Ecosystem addressed this question.

> Will seasonally gated roads provide sufficient security for grizzly bears?
> The SSAs, particularly those for spring, will require seasonal road closure using gates. It is assumed that gated roads will function as closed roads at best or at least as low use roads (<1 vehicle/day). SFSA female grizzly bear use of areas near low use roads is not clear. When all other measured variables are equal, adult female bears appear to avoid areas with high densities of low-use roads in spring a (sic) summer (but not fall (Mace et al. 1998). but, from within their seasonal ranges, most bears do not avoid low use roads by 500 m (Mace and Waller, 1996). **It appears that these bears avoid areas with high densities of low use roads, but don't avoid these individual roads when they are encountered in their seasonal range. If densities of gated roads are excessive, SSAs may not be as secure as hoped. In addition, it is not clear that areas with networks of roads that are only closed seasonally will be regarded by bears the same as permanently closed roads. Once a bear is within a network of closed roads, the roads may have little effect on the bears use, however, bears may not use areas with seasonally closed roads because of previous experience during seasons when the roads are open. There appears to be no data on the effectiveness of seasonally closed roads.** (emphasis added) McLellan, B., M.S. Sanjayan, Nova Silvy, 9/19/2000, Peer Review of the Motorized Access Management Strategies for Grizzly Bear Habitat in the Northern Continental Divide Ecosystem.

In addition to the existing road network on state lands DNRC wants to build an additional 19.5 miles of new permanent roads on the Stillwater State Forest with 8 miles of temporary roads at any one point in time while also eliminating secure core area and replacing it with these seasonal closures. DNRC references Weilgus et al 2002 to suggest "there is little support for the hypothesis that unused roads or roads used only for forestry operations displace grizzly bears." However, those authors stress that their results should **not** be used elsewhere.

On the Swan River State Forest DNRC wants to build an additional 72 miles of new permanent roads. The Swan Valley has experienced high grizzly bear mortality in the past few years, road densities are already high with very few roads on state lands reclaimed, and there are no secure core areas outside Forest Service roadless or wilderness areas. The question of multiple standards for mixed ownership lands was also addressed in the peer review.

> Are the multiple standards used for sub-units with private land sufficient for conservation?
> Several ad-hoc exception rules were made to road standards for sub-units with private ownership and associated access routes. Private roads were excluded from road density calculations and if federal land was <75% of the sub-units, "no net loss" rather than the numerical guideline value was used. These, and other rules that relaxed road density guidelines were established in sub-units with private lands even when it was shown that a bear's level of risk was 30.27 times as great in rural areas as in backcountry areas. **It would appear that in sub-units with private holdings that stricter, not reduced, access controls would be necessary to offset higher levels of mortality.** (emphasis added) McLellan, B., M.S. Sanjayan, Nova Silvy, 9/19/2000, Peer Review of the Motorized Access Management Strategies for Grizzly Bear Habitat in the Northern Continental Divide Ecosystem.

The HCP will rely on the Swan Valley Conservation Agreement (SVCA) for grizzly bears but the SVCA is overdue for revision and key questions need to be addressed in the HCP EIS as well as the SVCA EIS: Has the lack of a total road density standard and security core areas hindered bear recovery and contributed to the Swan Valley being a sink for grizzly bears? Is the SVCA adequate for minimizing "take"?

Ineffective road closures should be dealt with immediately. Enclosed is a survey of road closures in the Swan Valley conducted in 2004 by Friends of the Wild Swan and others.

2) The HCP and Swan Valley Conservation Agreement must have habitat-based criteria to make sure that good bear habitat is always available. Are bears being relegated to unsuitable habitat to allow for activities? There needs to be a provision to make sure that bears are not being displaced into habitat that is not able to meet their dietary needs or worse, into developed areas.

The Habitat Considerations on page 3-8: "When designing timber sale projects in recovery zones, DNRC will assess impacts to important bear habitat elements and develop site-specific mitigations that avoid or mitigate impacts to these elements, where practicable. This does not include timber permits." We do not know what important bear habitat elements will be assessed, how they will be evaluated on a landscape basis, whether they will be mitigated (if practicable) and if timber permits are not included what those cumulative effects to bear habitat are.

3) There are no dates for spring management restrictions on page 3-5. Logging/road building should not occur in spring habitat between 4/1 and 6/30 (minimum). July 15 or 7/30 is better, especially in riparian areas and adjacent to avalanche chutes.

> Based on diet studies in the SFSA and further south (Craighead et al. 1982, Mace and Jonkel 1986), 15 July was identified as the division between spring and summer (Mace and Waller 1996, Wallter and Mace, 1997). This break was moved to 30 June because the public believes that summer begins on 4 July. The diet studies of Mace and Jonkel (1986) however, were based on only 140 samples and these were not analyzed weekly or bi-weekly. The division between spring and summer was also not clear from the elevational movement data in the SFSA (Waller and Mace 1997). In the North Fork of the Flathead, shifts in diet, elevation, and habitat use suggested that the spring/summer division was at the end of July (McLellan and Hovey, 1995, in press). **If roads closed to protect bears during the spring are opened on June 30, then bears in portions of the NCDE will not have security in their spring SSA for 1 month.** (emphasis added) McLellan, B., M.S. Sanjayan, Nova Silvy, 9/19/2000, Peer Review of the Motorized Access Management Strategies for Grizzly Bear Habitat in the Northern Continental Divide Ecosystem.

The USFWS must evaluate whether portions of some grizzly bear subunits should have longer spring restrictions, based on habitat criteria, in order to ensure that bears have food sources available to them.

There are many exceptions to the spring management restrictions. There should be limits rather than wishy-washy "attempt to avoid" language.

4) There is vague squishy language throughout this conservation strategy. Some examples include:

- Page 3-8, 3.3.1 Habitat Considerations #1: where practicable
- Page 3-8, 3.3.2 Visual Screening #1: where practicable
- Page 3-16, c.i. "when economically and operationally practicable

The Conservation Strategy also contains many blanket exceptions for activities that have impacts to bears without mitigation or alternatives to avoid impacts.

5) What is the scientific basis for changing the 3 and 7 rule (for every three years of activity there must be 7 years of rest in a subunit) to 4 and 8 years? Large commercial salvage operations should not be allowed in inactive subunits during the non-denning season.

6) There are no provisions for maintaining bear cover and habitat in linkage corridors outside of the Swan Valley.

**Lynx**

1) Scientific knowledge about lynx ecology is still developing. The Lynx Conservation Strategy uses untested assumptions and weak commitments that will be locked in with no surprises guarantees for 50 years. This is inappropriate.

In Ecology and Conservation of Lynx in the United States Ruggiero et al summarize the limits of our knowledge about lynx, research needs and the necessity of erring on the side of caution when implementing management actions.

> We do not yet understand many of the factors that determine lynx distribution and abundance, hence we do not have a very sophisticated understanding of how human activities affect the persistence of lynx populations.
>
> This situation has three important ramifications for any attempt to elucidate the scientific basis for lynx conservation. First, this book is not a substitute for reliable knowledge gained through a sustained commitment to scientific research. The second and corollary ramification is that any management strategy based all or in part on the information contained in this volume must be clearly identified as *interim*. A more enduring strategy is contingent upon the acquisition of additional knowledge about lynx ecology and greater understanding of factors influencing the persistence of lynx populations. Finally, because the insights offered here embody a poorly developed "state of the art," we use the terms *qualified insight* to remind the reader of this limitation and **to stress the need for cautious, conservative decision-making**. (emphasis added, pages 9-10)
>
> Existing lynx habitat management plans in the contiguous United States are generally focused at relatively small spatial scales, and emphasize the production of young forest to provide foraging habitat, and the maintenance of a few, small patches of older forest to provide denning habitat (e.g., Washington State Dept. of Natural Resources 1996). These plans are based on the premise that if a few small areas of old-growth forest are provided within the matrix for denning habitat, landscapes managed primarily for a spatial and temporal mosaic of high quality snowshoe hare habitat will provide for the long-term persistence of lynx populations (Koehler and Brittell 1990). However, this approach is based on untested hypotheses and does not address the divergent needs of other species that inhabit these landscapes. (Page 428)
>
> We conclude that extensive areas of contiguous suitable habitat are needed to ensure viable lynx populations. All areas in the contiguous United States where we can state with certainty that lynx currently occur are directly connected to larger habitat areas. Apparently, lynx are unlikely to persist in relatively small, isolated refugia of suitable habitat. In saying this, we acknowledge a very

incomplete understanding of what constitutes suitable lynx and hare habitat in the contiguous United States. (Page 445)

We conclude that a showshoe hare density greater than 0.5 hare/ha is likely required for lynx persistence. Hare habitat occurs in a range of stand ages, including regenerating disturbed stands and late-seral forest. Regenerating stands can be highly productive for hares, but such stands are temporally transient. Late-seral forests tend to be moderately productive for hares but also produce red squirrels and are temporally stable. For lynx to persist, a range of stand ages may be necessary to provide adequate habitat for hares and for denning. However, on drier sites where regeneration is sparse, the value of regenerating stands as hare habitat may be diminished relative to the value of late-seral stands. The negative exponential forest model provides a range of stand ages and thus provides a possible template for landscape management. Our generally poor understanding of lynx-habitat relationships at all spatial scales hampers the development of specific habitat-management prescriptions. (Page 447)

We conclude that to support abundant snowshoe hare and red squirrel populations, landscapes must contain forested areas with low, dense horizontal structure and late-successional areas with cone-bearing trees and coarse woody debris. The optimal amounts and arrangement of these elements relative to lynx persistence is unknown and represents a critical research need. (Page 449)

Ruggiero, Aubrey, Buskirk, Koehler, Krebs, McKelvey and Squires, Ecology and Conservation of Lynx in the United States, October 1999.

2) DNRC's Lynx Conservation Strategy calls for two potential den sites per square mile (page 2-1). The Lynx Conservation Assessment and Strategy, January 2000 (LCAS) standards are: Within a LAU, maintain denning habitat in patches generally larger than 5 acres, on at least 10% of the area that is capable of producing stands with these characteristics. Where less than 10% of the forested lynx habitat within a LAU provides denning habitat, defer those management actions that would delay achievement of denning habitat structure. (LCAS page 78)

DNRC will only connect denning habitat structures to adjacent lynx habitat "where feasible." What are conditions of fesability? Denning habitat must be in or near areas that provide lynx with prey in order to raise kittens successfully, this includes old-growth forest habitat. In the absence of a complete understanding of lynx-habitat relationships it is important to retain the best habitat elements.

3) Only 1% of blowdown will be left unsalvaged and this excludes timber permits. The Lynx Conservation Assessment and Strategy (LCAS) requires 10% in patches of at least

5 acres (LCAS pg. 79) There is no scientific basis for allowing this increase in salvage logging.

4) The Coarse Woody Debris commitment is vague and contains no standards relating to lynx habitat needs. There are too many exceptions to the Coarse Woody Debris commitment. There is no provision for long-term mitigation if DNRC "supersedes" its CWD retention. There is no provision for completing analysis of the adequacy of the CWD that is retained.

5) Who is in charge of determining whether den sites are vacant? What monitoring will be done?

6) Key linkages need to be identified on a landscape scale. There must be a provision to ensure that projects don't incrementally create movement barriers. (see LCAS pg 87)

7) Road upgrades must be evaluated for impacts to lynx. (see LCAS pg 89)

8) The adequacy of 25 foot riparian buffers for movement of lynx is untested.

9) DNRC is proposing to maintain "at least 65% of total potential lynx habitat as suitable lynx habitat and no more than 35% as temporary non-suitable habitat. The LCAS requires 85% retained as suitable habitat. (see LCAS pg 79)

10) There must be a provision for mapping the juxtaposition of denning and foraging habitat on a landscape scale and updating that map as projects are implemented.

11) Reporting requirements must include a map showing suitable/unsuitable lynx habitat, the juxtaposition of denning and foraging habitat and movement corridors, not just percentages.

12) Attachment 15, Swan Unit– Why isn't most of T23N, R17W considered lynx habitat?

13) Only 20% of potential habitat is maintained as foraging habitat. The LCAS states that "Timber management practices should be designed to maintain or enhance habitat for snowshoe hares and alternate prey such as red squirrel. Dense horizontal cover of conifers, just above the snow level in winter, is critical for snowshoe hare habitat. This structure may occur either in regenerating seedling/sapling stands, or as an understory layer in older stands. " (LCAS page 78)

14) There is a conflict between DNRC's conversion of tree species from shade-loving to seral on many cool sites and aspects with more shade (north, northeast and east). What effects do these crop-tree management decisions have on lynx, their habitat and viability? Conversions on these sites should be declared experimental, held to a

minimum amount of acres and monitored to ensure they are not having a negative impact on lynx.

Many of these conservation strategies are based on untested theories and in many cases are well below what has been proposed on other ownerships or what scientists are recommending. Monitoring consists mostly of compliance with or implementation of these untested theories, rather than monitoring to see whether the theories are valid. In either case, these conservation strategies do not retain future options for lynx and allow large of areas of even-aged management and tree species conversion.

"Until conclusive information is developed concerning lynx management, we recommend the agencies retain future options. That is, choose to err on the side of maintaining and restoring habitat for lynx and their prey. In particular, managers should avoid making an irretrievable commitment of resources that could ultimately prove crucial in maintaining or restoring viable, self-sustaining lynx populations within an ecosystem." (LCAS page 75) This HCP must contain 1) standards that avoid making an irretrievable commitment of resources and 2) provisions that allow for changes in lynx habitat management as more scientific studies lend a better understanding of what lynx need for survival and recovery.

**Bull Trout**

The Conservation Strategy for aquatic species starts with a baseline that is not pristine, and in many cases is degraded from existing roads and past management activities. It allows large amounts of road construction, long time frames to assess problems and long time frames to correct problems. It relies on assumptions that need to be more carefully scrutinized through the adaptive management process. However, the adaptive management process has its shortcomings so standards for habitat elements essential for bull trout survival and recovery need to be included. These include temperature, sediment, woody debris and bank stability.

1) The aquatic conservation strategy does not disclose the large amount of roads that DNRC intends to build. That information was only contained in the grizzly bear conservation strategy. There is a huge discrepancy between the aquatic strategy's claim that roads will be "minimized" and the fact that on the Stillwater and Coal Creek state forests DNRC intends to build 19.5 miles of new permanent roads and maintain 8 miles of temporary roads at any point in time. (Grizzly CA page 3-11) On the Swan River State Forest DNRC intends to build a whopping 72 miles of permanent roads. (Grizzly CA page 3-19) Other road construction can probably be anticipated on other state lands. This is in addition to the approximately 1,258 miles or 42% of the existing road network that is within 300 feet of streams. We hardly consider this to be minimizing the road network.

The USFWS Interim Conservation Guidance's (December 9, 1998) problem assessment for roads states:

> Bull trout are less likely to use streams in highly roaded areas for spawning and rearing, and where found in highly roaded areas are less likely to be at strong population levels. Bull trout strongholds in the Interior Columbia River Basin showed a very strong (P=0.0001) negative correlation with road densities. The average road density in bull trout strongholds was 0.45 mi/mi2, which is considerably less than the standard of 2-3 mi/mi2 reported as adequate for populations of anadromous salmonids. Bull trout populations classified as "depressed" had an average watershed road density of 1.4 mi/mi2 and bull trout typically were absent at an average road density of 1.7 mi/mi2. Although some variability in these patterns was apparent the association was strong, suggesting that bull trout are exceptionally sensitive to the direct, indirect, or cumulative effects of roads.
>
> Roads have the potential to adversely affect all of the habitat components discussed in this Guidance: water temperature, substrate composition and stability, habitat complexity and connectivity.

The conservation strategy does not disclose the current road densities in bull trout watersheds and there is no plan for reducing road densities which is crucial for the survival and recovery of bull trout.

2) Time frames to complete assessments are too long. The conservation strategy allows DNRC 10 years to complete road inventories on bull trout watersheds and 20 years to complete all road inventories. (Page 3-10) Then DNRC has another 5 years to complete corrective actions so it will take 15 to 25 years just to assess and correct problems from past road construction. (Pages 3-11 and 3-12) Yet, DNRC intends to construct new permanent and temporary roads during this time in addition to logging, grazing and other management activities. We fail to see how this benefits bull trout and other native fish.

Fish connectivity is characterized as a critical ecological function in this conservation strategy yet DNRC has 30 years to ensure all stream crossings allow connectivity of adult and juvenile bull trout, westslope cutthroat trout and Columbia redband trout. (Page 4-5) This is more than half the life of the HCP.

DNRC anticipates that during the life of the HCP it will replace all culverts on its roads. While we understand the need to make sure that culverts are large enough to accommodate flood events and provide fish passage, the impacts of replacing culverts also must be factored in and decisions made whether, on permanent road systems, bridges are a better option from a fish passage, sediment delivery and road maintenance perspective. Furthermore the aquatic strategy does not disclose whether the new culverts will be designed to withstand 25, 50 or 100 year flood events.

3) The conservation strategy treats temporary roads as if they have no impacts because they will be reclaimed. This is a false assumption because the only thing temporary about them is limiting vehicular use (provided they do that). The most major impacts of temporary roads occur during construction and the first year after. These water quality/fish habitat effects are the same as constructing a permanent road. Then, if that temporary road is reclaimed there are additional impacts. But even the best obliteration does not immediately restore soil conditions and attendant effects on hydrology, vegetation and other resulting offsite effects.

Temporary roads have the following effects that are supported by scientific literature:

a. The greatest surface erosion from roads occurs during the construction phase and first year after.

b. Soil erosion and compaction (as always occurs with roads) causes long-term loss of soil productivity.

c. The loss of topsoil and attendant loss of soil productivity is permanent.

d. Road obliteration does not immediately stop severely elevated soil erosion from roads.

e. "Temporary" roads have enduring impacts on aquatic resources.

f. Roads and increased sedimentation cause long-term negative impacts on a variety of aquatic biota.

4) The conservation strategy does not contain standards for habitat conditions essential for bull trout and native fish survival. Conversely, the proposed monitoring is not tied to a specific standard or corrective action. Instead there are vague objectives such as "determine whether no-harvest buffers and tree retention requirements provide *adequate* levels of potential LWD recruitment…" or "assess whether the levels of in-stream cover provided by tree retention commitments are *adequate* to maintain stream temperatures;" or "DNRC will determine whether the proposed conservation strategy provides *adequate* levels of potential LWD recruitment to meet in-stream LWD targets." What constitutes adequate? What stream temperatures are being maintained? What corrective actions will be taken? (Pages 2-13 and 2-14)

The conservation strategies allows a 1 degree C increase in stream temperatures. "Pre and post-harvest stream temperatures will be monitored for up to 10 years to determine whether stream temperatures are elevated more than 1 degree C by logging on tier 1 streams." This is flawed in several ways. First, bull trout require cold water temperatures at all life history stages. Allowing this high an increase in water temperatures can have serious impacts on bull trout spawning, rearing and migration. Second, what happens if temperatures increase this much? There is no adaptive management trigger. Third, why is monitoring only for 10 years in a 50 year plan? The aquatic strategy needs a clear temperature standard.

Similarly there is no sediment standard. The aquatic strategy states that "site-specific monitoring projects using quantitative assessment methods will be implemented on selected sites." But this is only for effectiveness of BMPs and the strategy does not disclose what will be assessed. Without a standard how will you know whether you are affecting bull trout habitat with increased sediment? If the percentage of fine sediment in spawning gravels is greater than 35% then a stream is considered threatened. If the percentage of fine sediment in spawning gravels is greater than 40% then a stream is considered impaired as a bull trout and westslope cutthroat trout spawning and/or rearing stream. (Flathead Basin Commission Forest Practices Water Quality and Fisheries Cooperative Program Final Report, June 1991)

In addition, higher levels of sediment adversely affect bull trout fry emergence success. Weaver and Fraley found a significant negative relationship ($p<0.005$) between fry emergence success and the percentage of substrate materials less than 6.35 mm in diameter. Mean adjusted fry emergence success was 79, 64, 44, 39, 26 and 4 percent respectively, in cells containing 0, 10, 20, 30, 40 and 50 percent materials less than 6.35 mm. Results from these studies showed an embryo mortality of about two-thirds when 35% of the gravel comprising the incubation environment is smaller than 6.35 mm. At 40% smaller than 6.35 mm, approximately three-quarters of the embryos deposited did not emerge successfully. (Fisheries Habitat and Fish Populations contained in Flathead Basin Commission Forest Practices Water Quality and Fisheries Cooperative Program Final Report, June 1991)

Clearly, a sediment standard is required to ensure bull trout survival and to meet state water quality standards to support beneficial uses. Application of Best Management Practices does not mean that water quality standards are being attained. Implementation of this aquatic strategy could undermine the Total Maximum Daily Loads that have been developed for impaired waterbodies or cause new impairments.

5) The aquatic strategies allow DNRC to set thresholds to ensure compliance with water quality standards. Who will determine if the standards are adequate? Is a moderate degree of risk sufficient to minimize "take"?

6) Adaptive management is not a surrogate for an inadequate strategy in the HCP. The baseline conditions on the landscape are rarely pristine and in most cases have been degraded from past management activities. The proposed monitoring is vague and has no standards for known parameters essential for aquatic species survival. Even if there were standards it would still take many years to document trends and impacts and in the meantime potentially harmful practices would be widespread. In addition, DNRC has up to 25 to 30 years to assess and correct problems from past management. The fact that DNRC is seeking "no surprises" guarantees in the HCP limits what changes can even occur over the life of the Plan.

DNRC is also planning to use untested schemes such as a 25 foot no cut buffer that is riddled with exceptions. This proposal is weaker than the best scientific research suggests for aquatic species. For example, the Montana Bull Trout Restoration Team's Science Group suggested a caution zone that ranged from the 100 year floodplain plus 150 feet to the whole watershed. The Forest Service's Inland Native Fish Strategy requires 300 foot stream buffers. The USFWS Interim Conservation Guidance states:

> **The Service believes activities that occur within the caution zone may inherently pose some risk, and should not occur unless sufficient information is available to reliably demonstrate that the activity will not adversely affect habitat characteristics necessary to support bull trout.** (emphasis added) USFWS Bull Trout Interim Conservation Guidance, 12/9/98 citing Montana Bull Trout Scientific Group's 1998 report "The Relationship between Land Management Activities and Habitat Requirements of Bull Trout."

The caution zone they refer to is the 100 year flooplain + 150 feet for both bull trout core and nodal areas.

The burden is on DNRC to prove that the strategy they are proposing is adequate to "minimize take" of threatened and endangered species. This aquatic strategy is based primarily on DNRC's existing management practices, but bull trout were listed due to the inadequacy of existing regulatory mechanisms so clearly the status quo was not adequate to ensure the bull trout's survival.

7) Many roads on state lands are closed seasonally or permanently. However, there is no provision in the aquatic strategy for inspecting the culverts on these closed roads on a regular basis. Culverts on unmaintained and closed roads can plug and blow out causing road fill to be dumped into the streams damaging fish habitat.

**Transition Lands Strategy**

The net loss commitment in the transition lands strategy has no provision for lynx or old-growth forest habitat that is essential for lynx travel, denning and foraging. This was an issue we raised in our comments on the Real Estate Management Plan but was not addressed by DNRC. DNRC must make a commitment to no net loss of old-growth forest habitat for lynx.

Development along bull trout streams needs to carefully consider the effects that drilling wells for residential or commercial use has on upwelling groundwater.

Overall we believe these conservation strategies need to be significantly improved. There should be a margin of safety built in to ensure that our lack of knowledge does not result in extirpation of the species this HCP is supposed to protect. DNRC appears to be asking for the USFWS's stamp of approval on its current management practices. But USFWS, in granting an incidental take permit, must ensure that DNRC's

management does not appreciably reduce the likelihood of survival and recovery of species covered under the Habitat Conservation Plan. These two conflicting premises must be reconciled, however, in these documents they are not.

Sincerely,

Arlene Montgomery
Program Director

Enclosures: Road closure effectiveness survey, December 2004
Peer Review of the Motorized Access Management Strategies for Grizzly Bear Habitat in the Northern Continental Divide Ecosystem, September 2000